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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jan Van Sinderen

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NXP, B.V.

NXP INTELLECTUAL PROPERTY & LICENSING

M/S41-SJ

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EXAMINER

NGUYEN, DUC M

ART UNIT

PAPER NUMBER

2618

NOTIFICATION DATE

DELIVERY MODE

08/24/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No. 10/539,316	Applicant(s) VAN SINDEREN ET AL.	
	Examiner DUC M. NGUYEN	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6 and 8 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 9, 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to applicant's response filed on 6/11/09. Claims 1-9, 11 are now pending in the present application. **This action is made final.**

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "component" or "the signal path" that separates audio signal from the video signal must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims **1-5, 7** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Independent claim 1 recites a limitation of “said at least one output signal of said mixer-circuit includes video-image data without audio data and wherein audio data is processed in a signal path that is separate from said at least one output signal of said mixer-circuit”, This limitation was **never** described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Here, the specification (i.e, paragraphs [0039-0041]) only describe the signals comprise video/audio information, but **never describe** at least one output signal of mixer-circuit includes video-image data without audio data and wherein audio data is

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processed in a signal path that is separate from said at least one output signal of said mixer-circuit.

Claim Rejections - 35 USC 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims **9, 11** are rejected under 35 U.S.C. 103(a) as being unpatentable by **Ichihara** (US Pat. Number **7,206,360**) in view of **Olson** (US Patent Number **7,050,778**).

Regarding claim **9**, **Ichihara** discloses a mixer-system comprising a mixer-circuit with at least two mixers for frequency translating RF signals and comprising an amplitude detector (fig. 4, rectifier 51, 52) for making amplitude corrections (see Figs. 1-2, ref. 19) for at least one output signal of said mixer-circuit, wherein said amplitude corrections are made during said frequency translating of said RF signals (see Figs. 1-4 and Abstract, note for the **feedback** correction in Fig. 1 which clearly suggest corrections are made during frequency translating), wherein it would have been obvious to one skilled in the art that the receiver in **Ichihara** would be able to receive video information as well as audio information contained in a RF signal, noting that has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations *Ex parte Masham* 2 USPQ2d 1647 1987).

As to the claimed limitation regarding a polyphase filter, it is noted that utilizing a poly-phase filter coupled to a mixer is well known in the art as disclosed by **Olson** (see Fig. 13 regarding poly-phase filter 1318), it would have been obvious to one skilled in the art at the time the invention was made to modify **Ichihara** to utilize a poly-phase filter as claimed, for further improving the performance of the system (i.e, filter distortions caused by amplifier circuits).

Therefore, the claimed limitations are made obvious by **Ichihara** in view of **Olson**.

Regarding claim **11**, the claim is rejected for the same reason as set forth in claim 9 above, where it is clear that the polyphase filter would suppress (filter) the video signal as claimed (intended use). In addition, it would have been obvious to one skilled in the art to couple the polyphase filter either before or after the detector 51, 52 in Ichihara because it has been held that rearranging parts of an invention involved only routine skill in the art. *In re Japikse*, 86 USPQ 70 (CCPA 1950). Therefore, by coupling the polyphase filter after the detector 51, 52, it is clear that **Ichihara** as modified would teach the amplifier circuit being connected between the polyphase filter and the at least two mixers.

Allowable Subject Matter

6. Claims **6, 8** are allowed.

Response to Arguments

7. Applicant's arguments filed 6/11/09 have been fully considered but they are not persuasive.

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As to claims 9, 11, in the Remark, Applicant contends that

Applicant respectfully traverses the § 103(a) rejections because the cited combination of references lacks correspondence. For example, none of the asserted references teaches the claimed invention "as a whole" (§ 103(a)) including, e.g., aspects of the claimed invention directed to making amplitude corrections during frequency translation. Because none of the references teaches these aspects, no reasonable combination of these references can provide correspondence. As such, the § 103 rejections fail.

More specifically, the Office Action has not cited any supporting discussion in the '360 reference which teaches that the cited amplitude detector carries out amplitude correction during any frequency translation. In fact, the purpose of the '360 reference teaches away from correction during demodulation, instead requiring that the amplitude deviation correction be carried out "after orthogonal demodulation" (see column 1 in the "Field of Invention"). Referring to the discussion of FIG. 1 at column 4:61 - 5:26, the cited rectifiers (51, 52) and correction (19) occur after demodulation (at demodulator 4) and are carried out on the respective I and Q signals (i. e., after the signals have been filtered). In a failed attempt to maintain the rejections based on the '360 reference, the Office Action improperly compares portions of Applicant's Figure 1 to the cited portions of the '360 reference instead of addressing the claimed invention as required.

In response, the examiner asserts that the compares portions of Applicant's Figure 1 to the cited portions of the '360 reference is proper in order to interpret the claimed limitation "during frequency translation".

The Office Action's assertions of correspondence to Applicant's disclosure do not address the fact that the '360 reference fails to teach making amplitude corrections during frequency translating (e.g., making amplitude corrections during demodulation by demodulator 4). The claimed invention clearly requires that amplitude corrections be carried out during frequency translation, for example, by providing feedback to the mixer-circuit (e.g., block 2 shown in Applicant's Figure 2) that performs the frequency translation. Applicant notes that the '360 reference does not teach that correction circuit 19 provides any feedback to the demodulator 4. See, e.g., Figure 1.

In response, the examiner agrees that the '360 reference does not teach that correction circuit 19 provides any feedback to the demodulator 4. However, the '360 reference **does teach** that correction circuit 19 provides feedback to the AGC circuit 7a. Since the AGC circuit 7a would read on the claimed "amplifier circuits 4, 5" of the specification (see Figs. 1 and 2). Therefore, in light of the specification (Figs. 1 and 2), the demodulator 4 and AGC 7a in the '360 reference would read on the claimed "mixer circuit" with the broadest reasonable interpretation. Therefore, Ichihara or the '360

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reference would make amplitude corrections during frequency translating as claimed.

Also note that it has been held that forming in one piece an article which has formally been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Applicant further contends that

In addition, the § 103 rejections are further improper because the '360 reference teaches away from making amplitude corrections during frequency translation, and thus teaches away from the proposed combination. Consistent with the recent Supreme Court decision, *M.P.E.P.* § 2143.01 explains the long-standing principle that a § 103 rejection cannot be maintained when the asserted modification undermines either the operation or the purpose of the main ('360) reference - the rationale being that the prior art teaches away from such a modification. See *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1742 (2007) ("[W]hen the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be non-obvious."). In this instance, the purpose of the '360 reference teaches away from correction during demodulation, instead requiring that the amplitude deviation correction be carried out "after orthogonal demodulation" (see column 1 in the "Field of Invention"). Thus, there is no motivation to modify the '360 reference to carry out correction during frequency translation because such a modification would undermine this purpose.

In response, the examiner asserts that there would be no need to modify the '360 reference to carry out correction during frequency translation because the '360 reference **does** teach that correction circuit 19 provides feedback to the mixer circuit (demodulator 4 and AGC 7a) with the broadest reasonable interpretation as discussed above. Therefore, the '360 reference would make amplitude corrections during frequency translating as argued by Applicant (by providing feedback to the mixer-circuit, e.g., block 2 (**amplifier** circuit) shown in Applicant's Figure 2 or block 7a shown in Fig. 1 of the '360 reference).

As to the 103 rejection for claims 1-5, 7, since the Examiner has decided not to include any 103 rejection in this Office Action until the 112 1st rejection is resolved, there would be unnecessary to provide any response.

As to the 112 1st rejection, in the Remark, Applicant contends that

Applicant respectfully traverses the § 112 1st rejection of claims 1-5 because aspects of these claims directed to are fully supported by Applicant's specification in compliance with the written description requirement as has been discussed in detail in the previous two Responses. In this instance, the Examiner has not met the initial burden of a thorough reading and evaluation of the application and has presented neither sufficient evidence nor sufficient analysis/reasons why a person skilled in the art would not recognize that the written description of the invention provides support for the claims. See, e.g., M.P.E.P. § 2163.

In response, the examiner asserts that after a thorough reading and evaluation of the application, specifically to paragraphs [0039-0041], a person skilled in the art would not recognize that the written description of the invention would provide support for the claim which recites,

a mixer-circuit with at least two mixers for frequency translating signals comprising audio/video information; and

an amplitude detector directly connected to the mixer-circuit for making amplitude corrections for at least one output signal of said mixer-circuit, wherein said amplitude corrections are made during said frequency translating of said signals comprising audio/video information, and

wherein said at least one output signal of said mixer-circuit includes a signal having video-image data without audio data and wherein audio data is processed in a signal path that is separate from said signal having video-image data.

Applicant further contends that

Instead, the rejection appears to be impermissibly based upon an assertion that the specification must recite word-for-word correspondence to the claim limitations. Applicant submits that word-for-word

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correspondence is not required by the M.P.E.P. or relevant law, and maintains that the figures, together with the discussion in the specification (see, e.g., paragraphs 0039-0041), fully support the claim limitations. See, e.g., *Union Oil Co. of California v. Atlantic Richfield Co.*, 208 F.3d 989 (Fed. Cir. 2000), *cert. denied*, 69 U.S.L.W. 3165 (Feb. 20, 2001) (No. 00-249) (quoting *In re Gosteli*, 872 F.2d 1008, 1012, 10 U.S.P.Q.2d 1614, 1618 (Fed. Cir. 1989) ("The written description requirement does not require the applicant "to describe exactly the subject matter claimed, [instead] the description must clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed. """). In response to Applicant's detailed explanation regarding support for the claims, the Examiner continues to simply conclude that there is no support without providing any evidence to rebut Applicant's position, as required. See, e.g., M.P.E.P. § 2163. Accordingly, the § 112(1) rejection of claims 1-5 and 7 is improper and cannot be maintained.

In response, the examiner asserts that the examiner does not recite that the specification must recite word-for-word correspondence to the claim limitations. In fact, paragraphs [0039-0041] **never** describe nor support the claimed limitation "at least one output signal of said mixer-circuit includes a signal having video-image data without audio data and wherein audio data is processed in a signal path that is separate from said signal having video-image data", where the input signal to the mixer circuit comprises audio/video information.

For foregoing reasons, the examiner believes that the pending claims (1-5, 7, 9, 11) are not allowable over the cited prior art.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. **Any response to this final action should be mailed to:**

Box A.F.

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300 (for **formal** communications intended for entry)

(571)-273-7893 (for informal or **draft** communications).

Hand-delivered responses should be brought to Customer Service Window,

Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry concerning this communication or communications from the examiner should be directed to Duc M. Nguyen whose telephone number is (571) 272-7893, Monday-Thursday (9:00 AM - 5:00 PM).

Or to Nay Maung (Supervisor) whose telephone number is (571) 272-7882.

/Duc M. Nguyen/

Primary Examiner, Art Unit 2618

Aug 18, 2009